



Acne

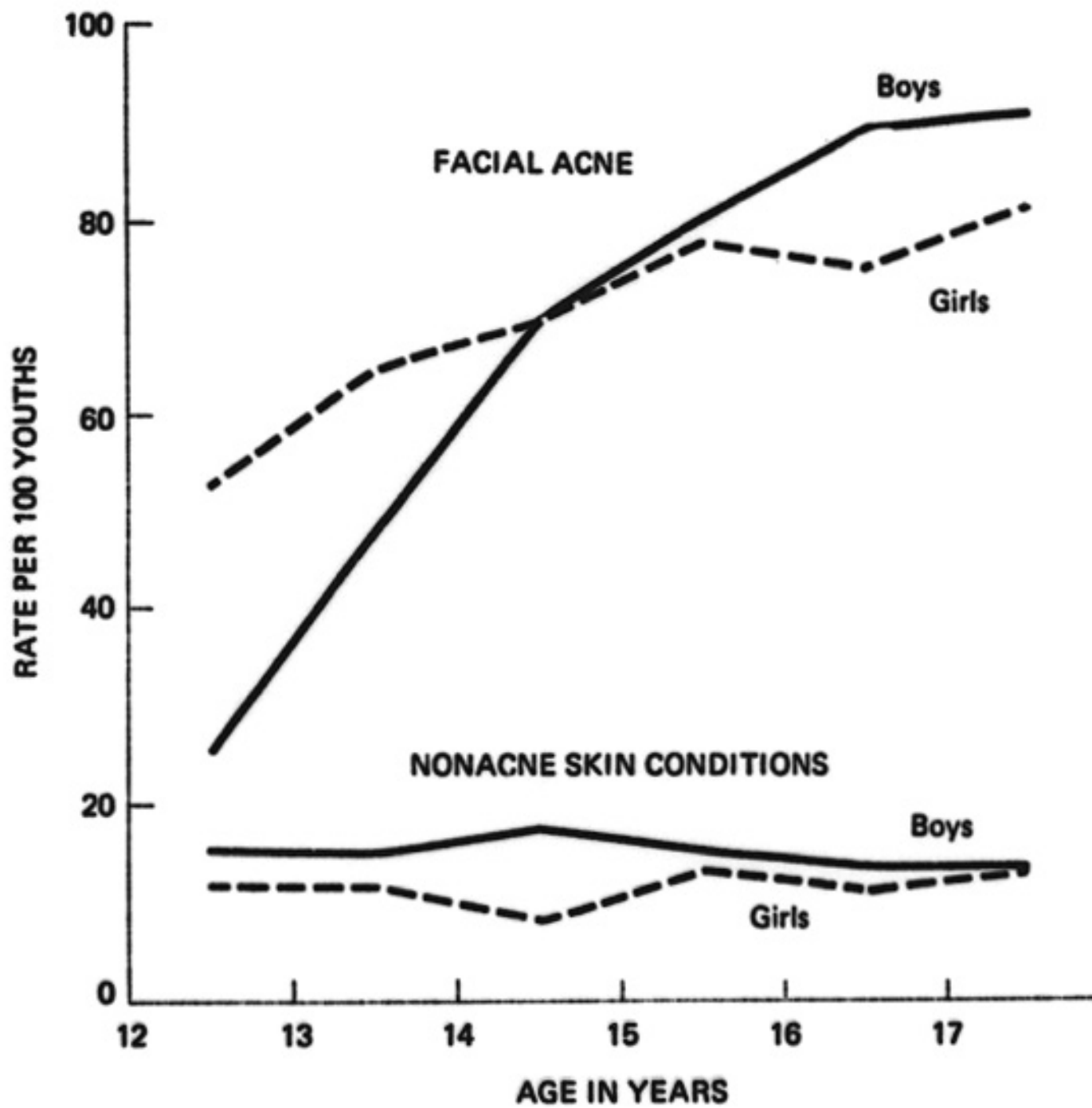
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Acneiform Disorders

- Acne Vulgaris
- Acne Rosacea
- Perioral Dermatitis
- Topical Steroid Induced Acne
- Neonatal and Infantile Acne
- Drug Induced Acne



Acne - Comedonal



Nodulocystic Acne

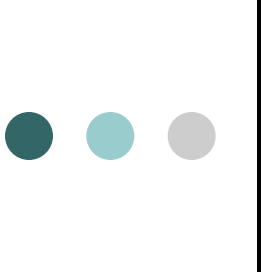


Acne Scarring



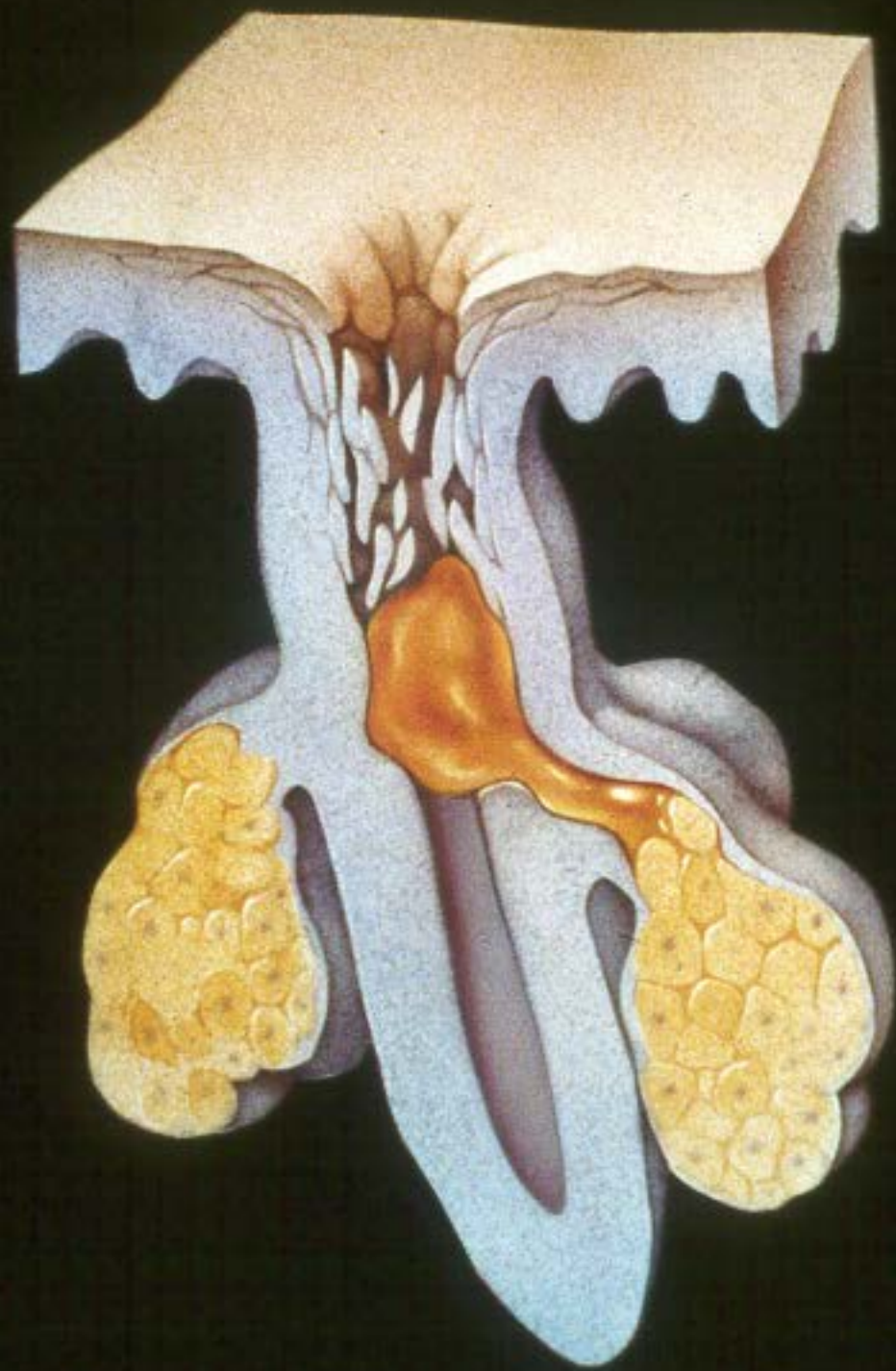
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Pathogenesis of Acne Vulgaris

- Androgen related overproduction of sebum
- Abnormal desquamation within the sebaceous follicle
- Proliferation of *Propionibacterium acnes* producing inflammation
- Genetic factors

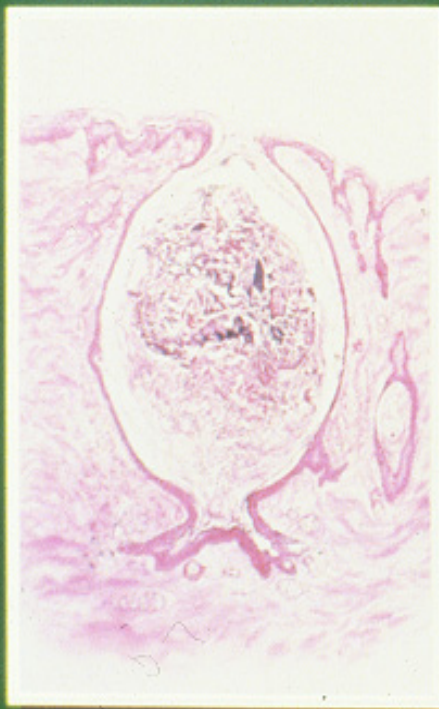


Non-Inflammatory Lesions

Microcomedo



Closed Comedo

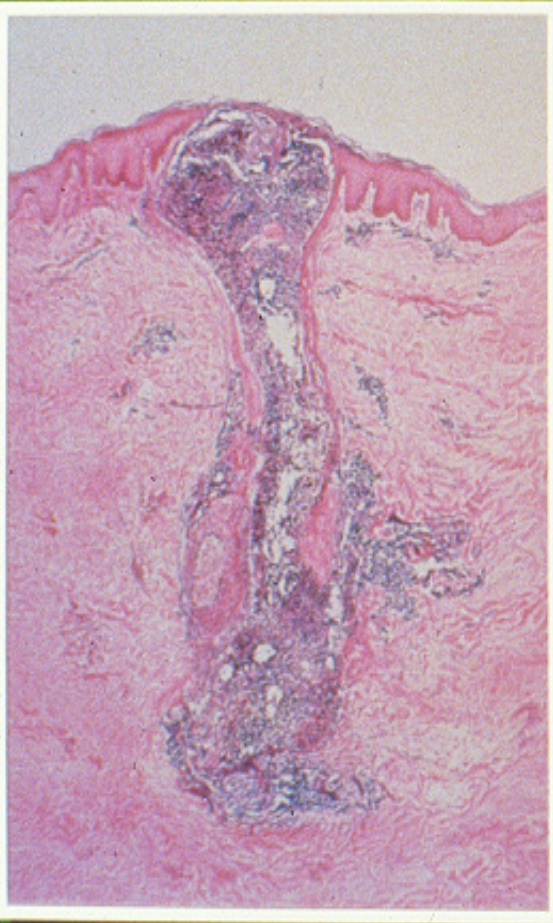


Open Comedo

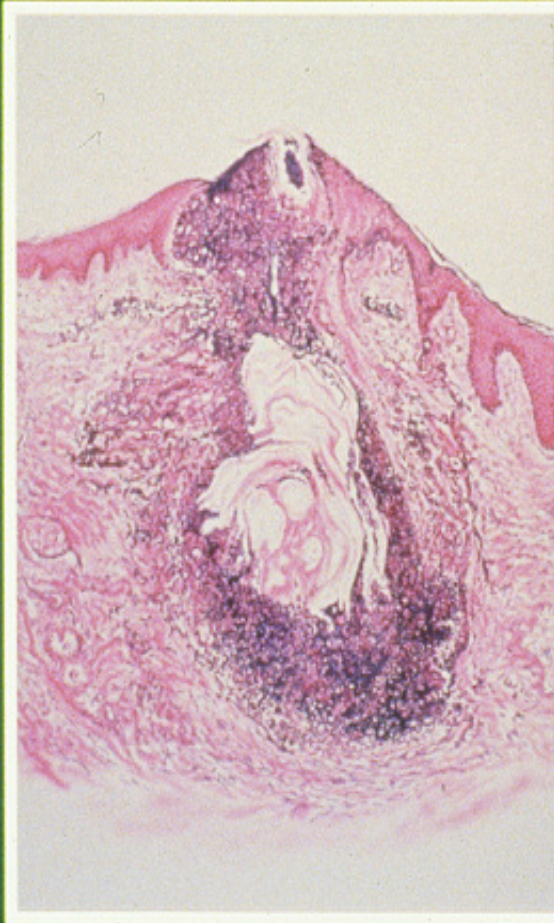


Inflammatory Lesions

Papule



Pustule



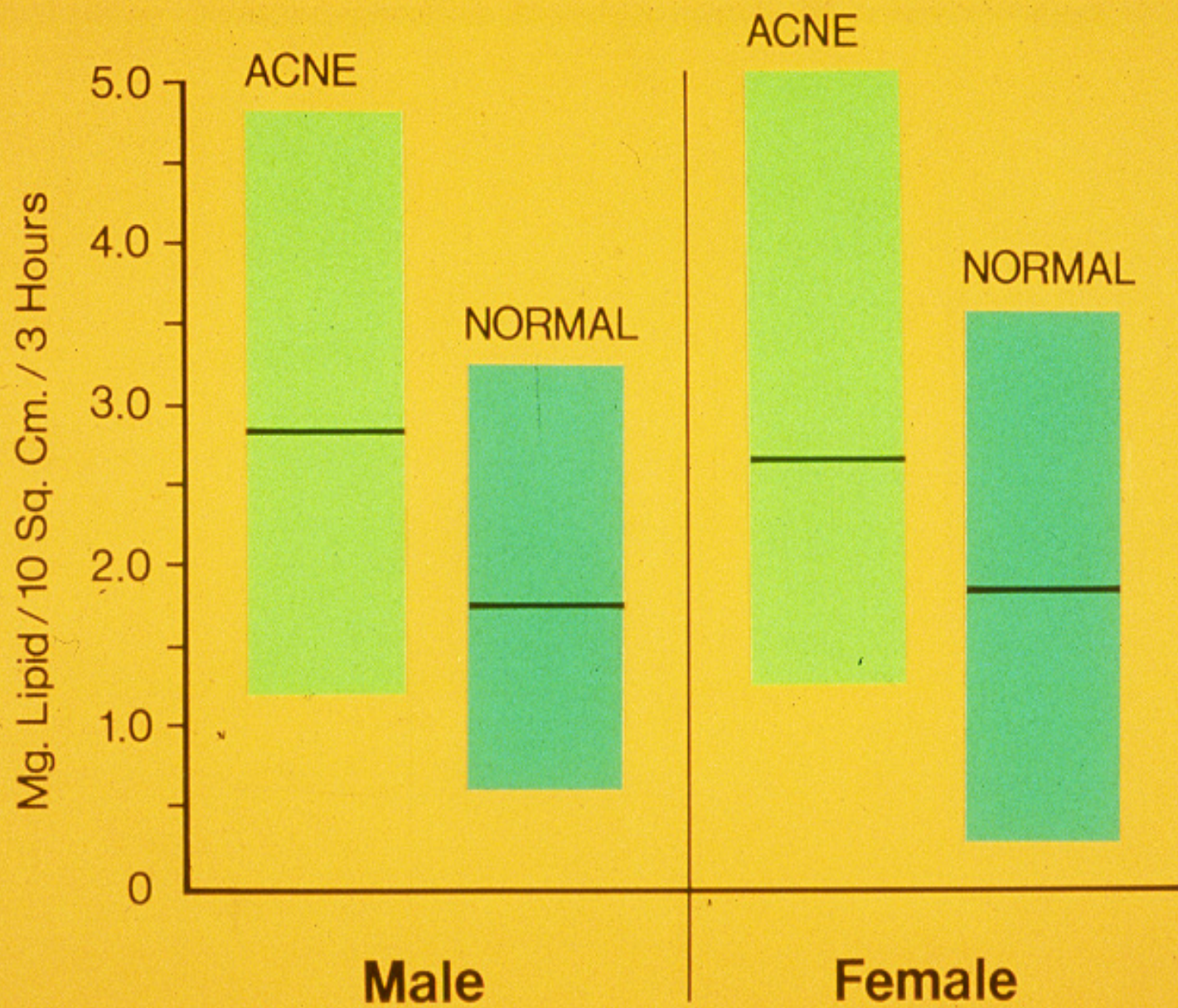
Nodule





Relationship between sebaceous glands and acne

- Acne occurs in the neonatal period
- Sebum is comedogenic
- Sebaceous gland activity is increased in acne
- Inhibition of sebaceous gland function improves acne





Principles of Therapy

- Correct defects in keratinization
- Decrease sebaceous gland activity
- Reduce the population of *P. Acnes* and thereby its extracellular products
- Produce an anti-inflammatory effect



Correct Defect in Keratinization

- Topical

- Retinoids (tretinoin, adapalene, tazarotene)
- Alpha hydroxy acids
- Salicylic acid

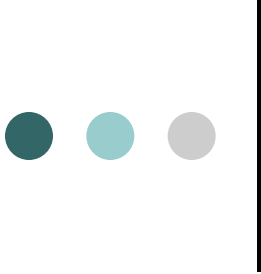
- Systemic

- 13 cis retinoid acid (Accutane)



Reduce P. Acnes Population

- Topical
 - Benzoyl peroxide
 - Azelaic acid
 - Topical antibiotics
- Systemic
 - Antibiotics
 - Retinoids



Produce an Anti-inflammatory Effect

- Local

- intralesional corticosteroids
- acne surgery

- Systemic

- Antibiotics Tetracycline, doxycycline, minocycline
- corticosteroids



Decrease Sebaceous Gland Activity

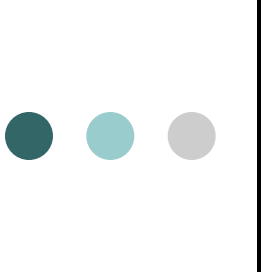
- Hormonal Therapy

- OCP's

- FDA approved for acne: Ortho Tri-Cyclen, Estrostep and Yaz
 - Least androgenic progestins: desogestrel, norgestimate
 - Drospirenone has antiandrogenic properties

- Spironolactone

- Retinoids



13-cis retinoic acid (Accutane)

- Extremely effective agent in acne vulgaris
- Extremely potent teratogen
- Other side effects include:
 - Dryness of the skin
 - Hyperlipidemia
 - Boney spur formation
 - Rarely depression
 - Inflammatory bowel disease- debated, but likely no relationship



13-cis-retinoid acid dosing

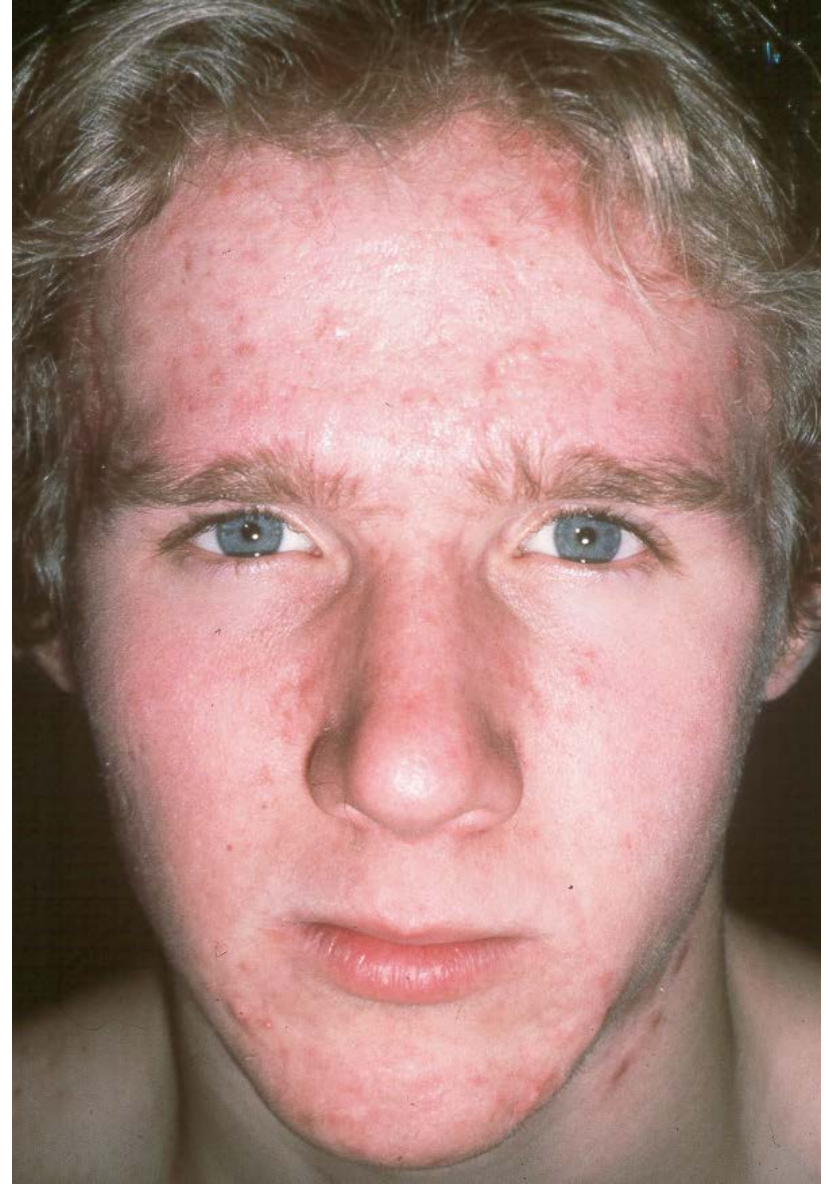
- 1mg/kg x 20 weeks
- 120-150mg/kg total dosage
- Must be prescribed through the ipledge program

Accutane

Before



After



Comedonal Acne



Acne - inflammatory lesions



Acne Vulgaris



Acne Vulgaris





Drug-induced Acne

- Anabolic steroids
- Corticosteroids
- Phenytoin
- Lithium
- INH
- EGFR inhibitors



Acne rosacea

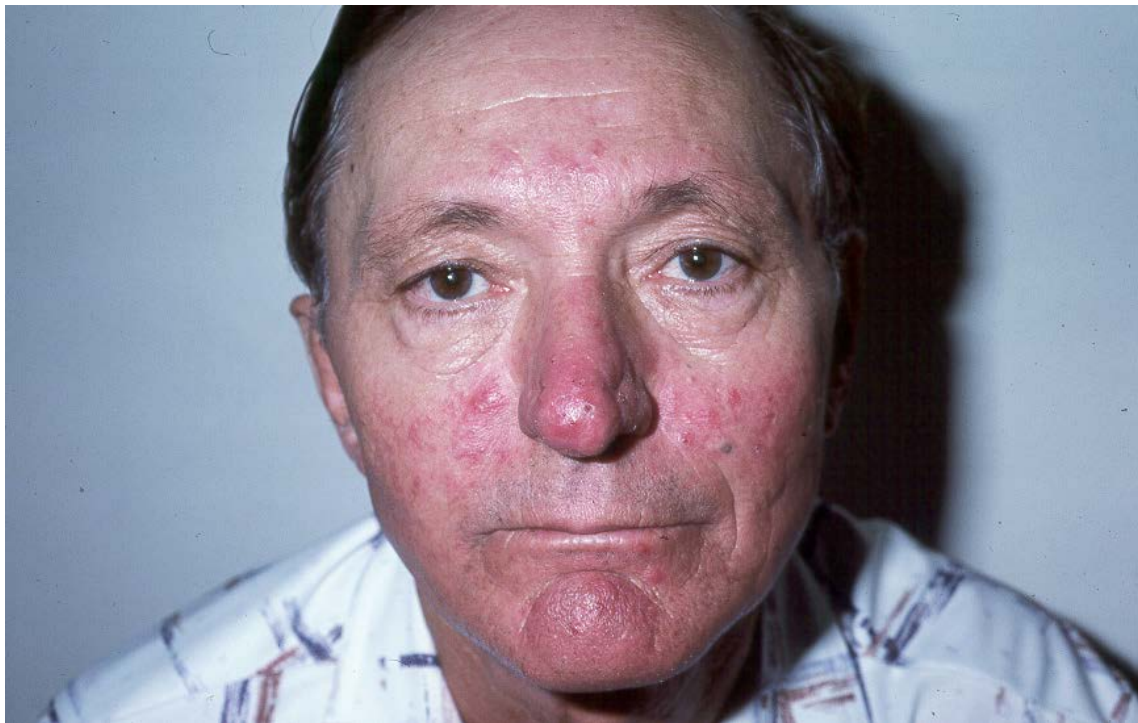




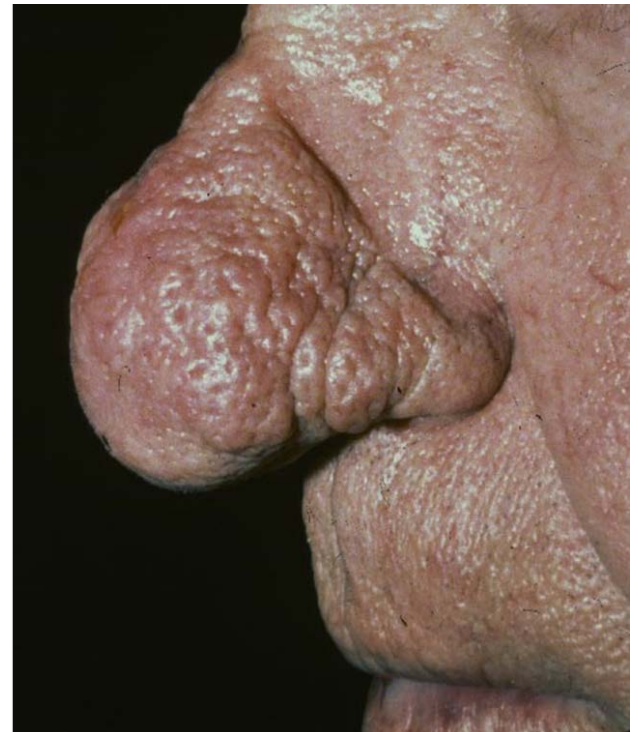
Acne Rosacea Etiology

- Vasomotor Liability
 - menopause
 - alcohol and spicy foods
- Demodex Mites

Rosacea



Rhinophyma





Rosacea Treatment

- Avoid triggers of flushing
- Topicals
 - Metronidazole cream/gel QD
 - Sodium sulfacetamide
 - Clindamycin lotion
 - Azelaic acid
 - Brimonidine (Mirvaso)
- Oral antibiotics
- 13-cis retinoid acid

Perioral Dermatitis

- Primarily young women
- Discontinue topical steroids
- Topical metronidazole, antibiotics may help
- Low dose tetracyclines very effective





Topical Steroids

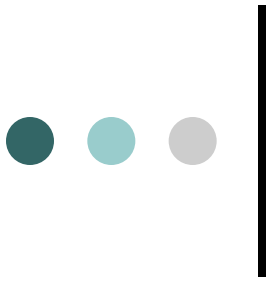
- Can induce either perioral dermatitis or acne rosacea
- In general, no topical steroids stronger than 1% hydrocortisone should be used on the face

Topical Steroid-induced Acneiform eruptions

○ Perioral dermatitis

○ Rosacea

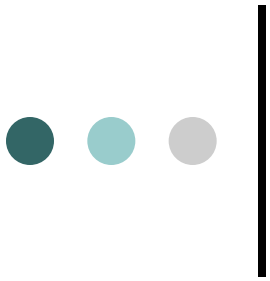




Neonatal Acne

- 2 weeks-3 months
- Both increased sebum and *Malassezia* have been implicated
- Treatment: ketoconazole cream, benzoyl peroxide and reassurance





Infantile Acne

- 6 mos – 3 years
- Must exclude hyper-androgenicity, but most children are normal
- Treat: benzoyl peroxide, tretinoin, oral erythromycin,



